Banking and Capital Markets bi-weekly news round-up

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Welcome to the DXC-curated news round-up.

A collection of technology-related articles for banking and capital markets (BCM). DXC Technology (NYSE: DXC) helps global companies run their mission-critical systems and operations while modernizing IT, optimizing data architectures, and ensuring security and scalability across public, private and hybrid clouds.

With this news round-up, published every 2 weeks, we highlight innovative and emerging news, regulation and research, as well as including DXC thought-leadership that explores new ideas, technologies and best practices.

To thrive in the complex and competitive financial market, banking and capital markets firms need products and services that work for twenty-first century customers and meet regulatory obligations. Modernise your IT and transform your business with DXC Technology's IT services and robust partner ecosystem.

Should you have any comments or suggestions, please feel free to contact me.

Happy reading.

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Artificial Intelligence (AI)

Algorithms Are Making Important Decisions. What Could Possibly Go Wrong?

Note: Accessing the article requires a subscription

Scientific American: Can we ever really trust algorithms to make decisions for us? Previous research has proved these programs can reinforce society's harmful biases, but the problems go beyond that.

A new study shows how machine-learning systems designed to spot someone breaking a policy rule—a dress code, for example—will be harsher or more lenient depending on minuscule-seeming differences in how humans annotated data that were used to train the system.

Despite their known shortcomings, algorithms already recommend who gets hired by companies, which patients get priority for medical care, how bail is set, what television shows or movies are watched, who is granted loans, rentals or college admissions and which gig worker is allocated what task, among other significant decisions. Such automated systems are achieving rapid and widespread adoption by promising to speed up decision-making, clear backlogs, make more objective evaluations and save costs.

In practice, however, news reports and research have shown these algorithms are prone to some alarming errors. And their decisions can have adverse and long-lasting consequences in people's lives.

Potential bias in firms' use of consumer data

The Financial Services Consumer Panel (FSCP) has published a report of the research which it commissioned into whether use of personal data and algorithms by financial services firms was leading to unfair, biased or discriminatory outcomes for consumers with protected characteristics.

The research reports that 'despite strong anecdotal evidence, categorically evidencing that algorithmic decision-making is the cause of bias is challenging because systems are opaque, making it difficult for third parties to truly understand what is happening "behind the scenes" '. However, the researchers were able to point to some clear areas of concern based on the evidence gathered:

- Consumers experiencing unfair bias relating to their ethnicity in terms of access to products, pricing of products and service received;
- Disability is another area where there is evidence of unfair outcomes; and
- While evidence about impact in relation to other types of protected characteristics is thinner, this should remain an area of focus (the issue may be more the dearth of concrete evidence).

In light of the research and the FSCP's prioritisation of the ethical application of algorithms and artificial intelligence (AI), the FSCP makes [certain] recommendations to the FCA.

Meeting The Computing Demand Of AI

Forbes: Generative artificial intelligence is becoming increasingly powerful and accurate, but such progress comes at a cost.

The large models behind generative AI are expensive and use a great deal of resources, according to Neil Thompson, director of MIT's FutureTech research project, lead research scientist of the MIT Initiative on the Digital Economy and a researcher with the MIT Computer Science and AI Lab.

During a recent presentation, Thompson showed how AI models are improving rapidly, with smaller and smaller error rates. Yet, this progress has required an enormous increase in computing power, leading to greater production of carbon dioxide and much higher costs.

These resource-intensive models could "take us into a world where we only have a few models that can be used," Thompson said. "If you're an economist, you should worry about that. You might say that sounds like something that would lead to a natural monopoly or lead to a lot of power in a particular few hands and we might not want that as a society."

Deep learning model fragility and implications for financial stability and regulation

The Bank of England (BoE) has published a staff working paper (WP) on the fragility of deep learning models and the implications for financial stability and regulation.

The opacity of deep learning models and their deployment for internal and consumer-facing decisions has led to increasing concerns regarding the trustworthiness of their results. Having tested the stability of predictions and explanations of different deep learning models, the WP results demonstrate that the models produce similar predictions but different explanations, even when the differences in model architecture are due to arbitrary factors.

This behaviour is compared with traditional 'glass-box models', and a methodology is shown based on network analysis to compare deep learning models. The analysis has implications for the adoption and risk management of future deep learning models by regulated institutions.

A.I. tools fueled a 34% spike in Microsoft's water consumption, and one city with its data centers is concerned about the effect on residential supply

Accessing the article may require a subscription.

Fortune: The cost of building an artificial intelligence product like ChatGPT can be hard to measure.

But one thing Microsoft-backed OpenAI needed for its technology was plenty of water, pulled from the watershed of the Raccoon and Des Moines rivers in central Iowa to cool a powerful supercomputer as it helped teach its AI systems how to mimic human writing.

As they race to capitalize on a craze for generative AI, leading tech developers including Microsoft, OpenAI and Google have acknowledged that growing demand for their AI tools carries hefty costs, from expensive semiconductors to an increase in water consumption.

But they're often secretive about the specifics. Few people in Iowa knew about its status as a birthplace of OpenAI's most advanced large language model, GPT-4, before a top Microsoft executive said in a speech it "was literally made next to cornfields west of Des Moines."

Beijing Tries to Regulate China's AI Sector Without Crushing It

Accessing the article may require a subscription.

Bloomberg: Beijing is poised to implement sweeping new regulations for artificial intelligence services this week, trying to balance state control of the technology with enough support that its companies can become viable global competitors.

The government issued 24 guidelines that require platform providers to register their services and conduct a security review before they're brought to market. Seven agencies will take responsibility for oversight, including the Cyberspace Administration of China and the National Development and Reform Commission.

The final regulations are less onerous than an original draft from April, but they show China, like Europe, moving ahead with government oversight of what may be the most promising — and controversial — technology of the last 30 years. The US, by contrast, has no legislation under serious consideration even after industry leaders warned that AI poses a "risk of extinction" and OpenAI's Sam Altman urged Congress in public hearings to get involved.

Treat large language AI models like a ‘beta’ product, NCSC warns tech leaders

TechMonitor: The UK’s National Cyber Security Centre (NCSC) has warned tech leaders of the security risks of building systems that incorporate large language AI models (LLMs).

The watchdog says a lack of knowledge of how the systems behave means that deploying them with customer data could have unpredictable consequences.

In advice published today, the NCSC outlines some of the security risks associated with AI technology and says businesses must exercise caution when deciding how to deploy the models.

Over recent months, business interest in using AI has boomed, driven by the popularity of OpenAI’s ChatGPT chatbot. This has led to many of the enterprise tech vendors infusing their products with AI, and companies in all sectors looking at ways to integrate automated features to boost productivity and offer better customer service.

ChatGPT is built on OpenAI’s GPT-4 LLM, which is capable of analysing text and images and producing detailed responses, and many of tech’s biggest names, including Google and Meta, have been developing their own LLMs.

BigTech

CFPB boss urges oversight of Apple, Google mobile payments

Accessing the article may require a subscription.

American Banker: The contactless payment functions on Apple and Google smartphones need to be regulated to protect consumer choice and provide a government check on private companies dominating U.S. payment systems, said Rohit Chopra, the director of the Consumer Financial Protection Bureau [CFPB].

While Google allows competing mobile wallets such as Samsung Pay to operate on Android handsets, Apple has only ever allowed Apple Pay — a restriction that has drawn pushback from banks around the world. Chopra said it may soon be time for the CFPB to step in and provide a level playing field for smaller fintechs that want to launch competing wallets.

"There is real concern that the largest technology firms will be able to erect even more gates and toll booths that will prevent the smallest firms from emerging, raising capital, growing and succeeding, even when they offer superior technology," Chopra said Thursday at the Federal Reserve Bank of Philadelphia's seventh annual fintech conference. "And I think that's going to require us to look at how to regulate it, and really how to think about these private regulations imposed by gatekeepers."

DXC’s perspective

This article highlights the continuing battle between fair competition, proper regulation of financial service providers and customer choice. Apple’s strategy is to ‘lock in’ customers to their range of products, and this has been very successful where the iPhone user base is strong. Google has an interoperability approach enabling compatibility with a wider range of services across different operating systems. This has driven growth; however, it is still behind Apple Pay in terms of active users. We will see ongoing focus on competition and regulation as companies, traditional banks, fintechs and new entrants compete not just for customers but for continued and diversified revenue streams.

Paul Sweetingham
Global Capability Leader, Banking BPO & CX
DXC Technology

Cybersecurity

New IBA report provides first-of-its-kind global perspective on cybersecurity risk governance

International Bar Association (IBA): The world is more reliant on technology and digitalisation than ever before. Technology has had a positive impact on economies, societies, public and private entities, as well as human life. But our growing dependence on digital technologies and the convergence of the physical and digital comes with the risk of cyber attacks.

Every piece of digital data and connected system represents a point of vulnerability that hackers and cybercriminals can target. Most organisations across the world recognise that it is not a case of 'if' but 'when' their organisation will be impacted by a cyber attack. Such risks are accelerated by geopolitical instability, lack of available talent, and increasing shareholder and regulatory expectations, which — all together — should make cybersecurity a top priority for boards and senior management.

Cyber attacks are among the fastest-growing form of crime worldwide and they are becoming more sophisticated, targeted, widespread and difficult to detect. Senior management, under the oversight of the board of directors, are responsible for managing cybersecurity and broader data security risks within the organisation and, as a result, need to focus their attention on establishing proper cybersecurity risk governance, both before and after a cyber event.

DXC's perspective

A cyber attack should be planned for in the same manner as any other operational business risk/event which covers both internal and external actions. We witness almost weekly clients that are underprepared even for minor events — this causes valuable time to be lost in dealing with the incident at hand. The IBA report touches on the operational readiness that any organisation should have in place and serves as a good information source — and a wake-up call for clients if you still operate on a "it will never happen to us" approach. The more you prepare and expect, the quicker you can deal and respond.

John Mundell
Sales Lead – Europe, Security
DXC Technology

Quis custodiet? Powerful Japanese cybersecurity agency hacked, as allies fret.

The Stack: Japan's national cybersecurity agency suffered a systems breach that went undetected for nine months, alarming global security partners.

That's according to the FT [Financial Times] earlier today, citing multiple unnamed sources as claiming Japan's National Centre for Incident Readiness and Strategy for Cybersecurity (NISC) was compromised last autumn in an incident that was not detected and communicated to global partners until June.

Japan says the impact was highly limited but the length of the breach raises concerns itself and suggests that visibility may be limited. NISC, founded in 2015, is led by Japan's Chief Cabinet Secretary and amongst other key responsibilities, runs "cybersecurity policy for critical infrastructure protection." It audits other government departments' cybersecurity and also runs a real-time government-wide monitoring team called the Government Security Operation Coordination team (GSOC).

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ESG

[The Unseen Banking Crisis Concealed Behind the Climate Crisis]

Better Markets: Dennis M. Kelleher, co-founder, president, and CEO of Better Markets, issued the following statement in connection with the release of a report, The Unseen Banking Crisis Concealed Behind the Climate Crisis.

"There's a major untold story behind the unprecedented climate disasters pummeling the country and capturing the headlines: today's climate crisis is tomorrow's banking crisis. More frequent and costly climate disasters are wreaking havoc with the insurance industry, which is causing insurance company bankruptcies and skyrocketing premium increases, if people can get any insurance coverage at all. The result is a proliferation of underinsured if not uninsured properties and businesses. However, insurance companies avoiding or limiting their losses do not eliminate the losses; they merely shift those losses to others like banks which hold the mortgages and loans on much of those losses.

There have already been 15 confirmed weather/climate disaster events each with losses exceeding $1 billion in the U.S. as of August 8th, the day the Hawaii fires started and weeks before Hurricane Hilary hit California. That's on top of U.S. property and casualty industry losses of $26.5 billion in 2022. To limit their losses from climate events, insurance companies are going bankrupt and withdrawing from high-risk markets, including entire states like Florida and California as detailed in the Report."

DXC's perspective

Adverse climate events are causing a 'protection gap' as insurers go under and withdraw from certain markets. For banks, the key question is how to calculate the resulting risk to themselves. To what extent might they end up "holding the baby"? And more controversially, how much capital might they need to set aside? The problem gets even more complicated once one factors in multiple scenarios for climate change. For good measure, throw in some politics with a capital 'P' and you can see how climate risk modelling is set to become a fault line in banking.

David Rimmer
Industry Advisor, BCM
DXC Technology

FinTech

Why it's so hard to design an 'everything app'

Fast Company: Elon Musk's recent rebranding of Twitter as X is a step toward the CEO's goal of developing an "everything app." Musk's vision is for X to mark the spot for all your digital needs—to chat with your friends, order groceries, watch videos, and manage your finances, all on one platform.

His recent announcement might have left you wondering what an everything app is and whether you need really one. If everything apps are so great, why isn't there one that's widely used in the U.S. already?

As someone who studies how consumers use social media and what that means for digital marketing, I find the idea of an everything app intriguing. I think that an everything app has the potential to be widely adopted in the U.S. if it's well designed and is valuable to its users. But there are lots of obstacles standing in the way of success—from data privacy concerns to building a larger user base.

DXC's perspective

Do we need an everything app, aka a super app? One can see the benefits of simplifying daily tasks via a single channel, but the thought "Don't put all your eggs in one basket" keeps popping up. What if the basket breaks? You could lose everything. Also, there's the practicalities to overcome: data privacy, content censorship, and security. An everything app is another piece of the metaverse jigsaw — one can see the attraction to build them. Is the real need for an everything app to collect more data about human activities to feed the AI progression?

Dave Wilson
Chief Technologist, Banking & Capital Markets
DXC Technology

Other DXC BCM News

Webinar: Driving Digital Transformation for Financial Services with Observability and App Modernization

On 7 September, DXC hosted a virtual webinar on "Driving Digital Transformation for Financial Services with Observability and App Modernization." In partnership with Dynatrace. Financial services experts from DXC and Dynatrace deep-dived to provide insights into how to achieve operational resilience with shift-left powered by Dynatrace and DXC. Watch the recording.

DXC Gold Sponsor at the 6th World Digital Banking Summit, Berlin

DXC is the Gold Sponsor and exhibitor at the upcoming 6th World Digital Banking Summit in Berlin on 5-6 October. This is set to be another fantastic event for our vertical and we look forward to seeing some of the team there.

As a follow up from our sponsorship and participation at the Banking Transformation Summit in London in June, Andy Haigh and Mohammed ("Khal") Khalid will carry on their story of the bank of the future in a data-rich world in a keynote speech on the morning of the 5th of October. Register. Come and meet us!.

Guest blog: Leveraging test automation and AI - How banks and building societies can innovate themselves into a sustainable future

Data analytics and generative AI are revolutionising the approach banks and building societies take to software development, testing, and delivery. But what's the solution when they struggle to match the rate of transformation necessary to maintain a competitive edge? Read this blog to find out.

Developing a data strategy in banking and capital markets

Data is king. Banks that know how to effectively harness it, manage it and monetize it can derive far better business insights, create significant growth opportunities and stay ahead of regulatory demands. Huge benefits can be reaped by developing a clear data strategy that defines how to access, ingest, and connect the essential data that can drive positive business outcomes. Read DXC's latest paper to learn about how banks can get the most out of their data.

Executive Data Series: The banking customer in a data-rich world

In the latest conversation of the Executive Data Series, DXC's Head of Banking and Capital Markets (EMEA) Andy Haigh sits down with Mohammed 'Khal' Khalid to discuss how banks can use data and analytics to transform financial services and improve the customer experience. **Listen to the full conversation (23 mins.) or read the transcript:** https://dxc.to/3NlsbXI

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Should you have any questions on the round-up or a particular topic, please feel free to contact your DXC representative.

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